ANNUAL REPORT
INSECT AND DISEASE CONDITIONS
IN WEST VIRGINIA

TO

THE UNITED STATES FOREST SERVICE, DELAWARE, OHIO

1979

Fall Cankerworm - Alsophila pometaria

Populations of this insect continue at very low levels in Grant and Jefferson Counties. Sticky trap bards and egg mass surveys will continue to be conducted to monitor the insect.

Oak Leaf Tier Complex

The tier complex continues to plague the red oaks in Pocahontas and Greenbrier Counties. The infestations this year were light to moderate over approximately 100,000 acres.

Eastern Tent Caterpillar - Malacosoma americana

Populations of this insect were very high this year throughout the state. The insect is on the upswing and will probably peak in another year. We can expect the insect to linger for a few years before declining.

Forest Tent Caterpillar - Malacosoma disstria

The only area in the state where caterpillars were found in abundance was in Jefferson County along the western side of the Blue Ridge Mountains. Even though numerous caterpillars were seen on trees, little damage was noted.

Scarlet Oak Sawfly - Caliroa quercuscoccineae

The scarlet oak sawfly, which had been a problem in southern West Virginia the last few years, has subsided and no areas were found to have any visible damage. We do not expect this insect to be a problem for several years.

Fall Webworm - Hyphantria cunea

The insect is common throughout the state but in no instance is there an outbreak by this insect. We have in the past had outbreaks occurring in various areas of the state.

ANNUAL REPORT OF DISEASE CONDITIONS

Dutch Elm Disease - *Ceratocystis ulmi*

Dutch elm disease is probably the most significant forest and shade tree problem in West Virginia. We have observed diseased trees throughout the state. Disease incidence appears to be at an all time high. No urban communities in West Virginia have a DED control program. In the past we tried to interest communities in disease control programs, but were unable to promote any interest. We still disseminate information concerning this disease to the public through radio spots and pamphlets.

Oak Wilt - *Ceratocystis fagacearum*

The West Virginia Department of Agriculture Oak Wilt Program was discontinued after the 1977 season. However, each year since the program was discontinued, we continued to maintain aerial surveillance. Disease incidence appeared to be lower in 1979 than it was during 1977 when we spotted and processed nearly 3000 trees.

Sycamore Anthracnose - *Gnomonia platani*

During the spring of 1979 climatic conditions were perfect for sycamore anthracnose. Many sycamore trees throughout the state suffered heavy defoliation. These trees remained 60%-70% defoliated through August. This is the second straight year that sycamore anthracnose disease incidence has been severe.

Hardwood Anthracnose Disease - Other than on Sycamore

Anthracnose disease has been observed causing moderate premature defoliation on chestnut oak trees. Apparently the moist summer we experienced was conducive to infection and disease development.

Cenangium Twig Blight

During the late winter and early spring a white pine dieback problem was observed in Raleigh and Mercer Counties. White pine seedlings and saplings growing under a hardwood overstory displayed the dieback symptoms.

Cankered areas were found on the branches and main stems of the saplings and seedlings. The cankers were reddish brown in color with black erumpent stroma present. Cankers appear to start at the

tips of small branches and enlarge to eventually form a canker on the main stem. The foliage on diseased branches turns a tan color and droops.

The causal organism was finally identified as Cenangium sp. Several thousand acres of natural white pine reproduction were involved.

Lophodermium Needlecast - Lophodermium pinastri

Lophodermium needlecast was reported in several Scotch pine plantations in the state. One stand suffered moderate damage while individual trees in other stands were damaged.

White Pine Root Decline - Verticicladiella procera

Each year we confirm the presence of white pine root decline in more plantings. Two new stands containing declining trees were found this year.

A cooperative research study is now being conducted with the West Virginia University, Division of Plant Sciences. Hopefully, some basic questions concerning this disease can be answered.

White Pine Blister Rust - Cronartium ribicola

The West Virginia Department of Agriculture still maintains a blister rust control program. Annually 20,000 acres of land are surveyed for blister rust. Suppression activities are conducted on 2000 acres. Approximately 75% of the white pine acreage in West Virginia need no further Ribes control work.

Nectria canker - Nectria galligena

A ten acre plantation of black walnut trees was heavily cankered by Nectria. A large percentage of the ten year old trees displayed the typical target shaped cankers. Virtually all of the cankers occurred at 12-18 inches above ground line.

Fumes annoses

In Preston County, Fomes annoses was found in a recently thinned stand of red pine. Several dead and dying trees were found with the Fomes annoses fruiting conks present at their base. We are watching the stand anxiously to determine how extensive the disease becomes.

Locust Leaf Miner - Zenochalepus dorsalis

The leafminer caused heavy damage to black locust in West Virginia during 1979. Damage to black locusts was recorded or noted throughout the state with the exception of the high mountain areas in Randolph, Tucker, Pocahontas, Nicholas, Webster, and Greenbrier Counties.

Walking Sticks

The walking sticks continue to cause defoliation to black locust and oaks in Mineral County. Approximately 10,000 acres of hardwoods were defoliated in late 1978. At this writing, defoliation is very light and does not seem widespread, but by the middle of October the situation may and probably will change. The insect seems to occur very late in the season in West Virginia, and defoliated trees suffer little or no damage.

Gypsy Moth

There were 46 male moths caught in 34 traps this year in West Virginia. Of this total, 42 moths were caught in Jefferson County, 2 male moths in Berkeley County, 1 in Hampshire County, and 1 in Mineral County.

The male moths caught in Jefferson County were concentrated southwest and northwest of Shannondale Development Area. It is very likely that infestations exist in these two areas.

In 1978 gypsy moth larvae had been found in Loudoun County, Virginia and a spray program was planned for the West Virginia-Virginia border line area to eradicate the known infestations.

On May 15 and May 29-30, 1979, approximately 5,200 acres of forest land were sprayed with Dimilin 25 WP to control the Gypsy Moth. The chitin inhibitor Dimilin was applied at the rate of .015 lb active ingredient in one gallon of water per acre on May 15th and applied at same rate on May 29-30. This type of spray was approved by EPA and we stayed within the .03 lb active ingredient per acre recommendation.

The application of Dimilin proved to be very effective in that we caught no male moths this year in the spray block areas and specimens of various caterpillars that were collected in the spray area were dead or dying.

On June 5, 1979, the first gypsy moth larvae to be found in West Virginia was collected from under burlap bands placed on trees in Shannondale Development. Additional burlap bands were placed on trees but only one larva was collected. The larva found was adjacent to the spray block area, but yet some distance from actual area.

Egg mass sampling will be conducted this fall in areas where male moths were caught.

Air Pollution

Extensive air pollution damage was noted on conifer trees throughout the state. White pine trees appeared to be the most sensitive of all the conifers. We suspect that the heavy overcast conditions experienced throughout the state for most of the summer held pollutants, such as SO_2, Ozone and PAN in the lower atmosphere, resulting in pollution symptom expression.